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# (12) United States Patent

## Rohrabaugh et al.

## (54) SCALABLE DISPLAY OF INTERNET CONTENT ON MOBILE DEVICES

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Notice: Subject to any disclaimer, the term of this (\*) patent is extended or adjusted under 35

U.S.C. 154(b) by 376 days.

This patent is subject to a terminal dis-

claimer.

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Field of Classification Search ...... 715/517,

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### (57)ABSTRACT

Mobile devices enabled to support resolution-independent scalable display of Internet (Web) content to allow Web pages to be scaled (zoomed) and panned for better viewing on smaller screen sizes. The mobile devices employ softwarebased processing of original Web content, including HTMLbased content, XML, cascade style sheets, etc. to generate scalable content. The scalable content and/or data derived therefrom are then employed to enable the Web content to be rapidly rendered, zoomed, and panned. Moreover, the rendered displays provide substantially the same or identical layout as the original Web page, enabling users to easily navigate to selected content and features on familiar Web pages. Display lists may also be employed to provide further enhancements in rendering speed. Additionally, hardwarebased programmed logic may be employed to facilitate various operations.

### 319 Claims, 22 Drawing Sheets

